

Principles of managerial finance

REVISION **Chapter 4**

- **Test bank**
 - ✓ **True & False.**
 - ✓ **MCQ.**

Principles of Managerial Finance, 12e (Gitman)

Chapter 4 Cash Flow and Financial Planning

Learning Goal 1: Understand tax depreciation procedures and the effect of depreciation on the firm's cash flows.

- 1) The depreciable life of an asset can significantly affect the pattern of cash flows. The shorter the depreciable life of an asset, the more quickly the cash flow created by the depreciation write-off will be received.

Answer: TRUE

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 2) Non-cash charges are expenses that involve an actual outlay of cash during the period but are not deducted on the income statement.

Answer: FALSE

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 3) Under the basic MACRS procedures, the depreciable value of an asset is its full cost, including outlays for installation.

Answer: TRUE

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 4) Business firms are permitted to systematically charge a portion of the market value of fixed assets, as depreciation, against annual revenues.

Answer: FALSE

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 5) Given the financial manager's preference for faster receipt of cash flows, a longer depreciable life is preferred to a shorter one.

Answer: FALSE

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 6) For tax purposes, using MACRS recovery periods, assets in the first four property classes are depreciated by the double-declining balance (200 percent) method using the half-year convention and switching to straight line when advantageous.

Answer: TRUE

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 7) The MACRS depreciation method requires use of the half-year convention. Assets are assumed to be acquired in the middle of the year and only one-half of the first year's depreciation is recovered in the first year.

Answer: TRUE

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

Prepared by the ghost

- 8) Allocation of the historic costs of fixed assets against the annual revenue they generate is called
- A) net profits.
 - B) gross profits.
 - C) depreciation.
 - D) amortization.

Answer: C

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 9) The Modified Accelerated Cost Recovery System (MACRS) is a depreciation method used for _____ purposes.
- A) tax
 - B) financial reporting
 - C) managerial
 - D) cost accounting

Answer: A

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 10) A corporation
- A) must use the same depreciation method for tax and financial reporting purposes.
 - B) must use different depreciation methods for tax and financial reporting purposes.
 - C) may use different depreciation methods for tax and financial reporting purposes.
 - D) must use different (than for tax purposes), but strictly mandated, depreciation methods for financial reporting purposes.

Answer: C

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 11) The depreciable value of an asset, under MACRS, is
- A) the original cost (purchase price) only.
 - B) the original cost minus salvage value.
 - C) the original cost plus installation.
 - D) the original cost plus installation costs, minus salvage value.

Answer: C

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 12) Under MACRS, an asset which originally cost \$10,000 is being depreciated using a 5-year normal recovery period. What is the depreciation expense in year 3?
- A) \$1,900
 - B) \$1,200
 - C) \$1,500
 - D) \$2,100

Answer: A

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 13) Under MACRS, an asset which originally cost \$100,000 is being depreciated using a 10-year normal recovery period. The depreciation expense in year 5 is_____.

A) \$10,000
B) \$12,000
C) \$21,000
D) \$ 9,000

Answer: D

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 14) Under MACRS, an asset which originally cost \$100,000 is being depreciated using a 10-year normal recovery period. The depreciation expense in year 11 is_____.

A) \$3,000
B) \$4,000
C) \$0
D) \$6,000

Answer: B

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 15) Given the financial manager's preference for faster receipt of cashflows,

A) a longer depreciable life is preferred to a shorter one.
B) a shorter depreciable life is preferred to a longer one.
C) the manager is not concerned with depreciable lives, because depreciation is a non-cash expense.
D) the manager is not concerned with depreciable lives, because once purchased, depreciation is considered a sunk cost.

Answer: B

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 16) The depreciable life of an asset is of concern to the financial manager. In general,

A) a longer depreciable life is preferred, because it will result in a faster receipt of cash flows.
B) a shorter depreciable life is preferred, because it will result in a faster receipt of cash flows.
C) a shorter depreciable life is preferred, because management can then purchase new assets, as the old assets are written off.
D) a longer depreciable life is preferred, because management can postpone purchasing new assets, since the old assets still have a useful life.

Answer: B

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 17) The depreciable value of an asset, under MACRS, is
- A) the full cost excluding installation costs.
 - B) the full cost minus salvage value.
 - C) the full cost including installation costs.
 - D) the full cost including installation costs adjusted for the salvage value.

Answer: C

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 18) Under MACRS, an asset which originally cost \$100,000, incurred installation costs of \$10,000, and has an estimated salvage value of \$25,000, is being depreciated using a 5-year normal recovery period. What is the depreciation expense in year 1?
- A) \$15,000
 - B) \$12,750
 - C) \$11,250
 - D) \$22,000

Answer: D

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 19) Darling Paper Container, Inc. purchased several machines at a total cost of \$300,000. The installation cost for this equipment was \$25,000. The firm plans to depreciate the equipment using the MACRS 5-year normal recovery period. Prepare a depreciation schedule showing the depreciation expense for each year.

Answer:

Depreciation Schedule			
Year	Depreciation Expense		
1	$(\$300,000 + \$25,000) \times$	0.20 =	\$ 65,000
2	\$325,000	$\times$ 0.32 =	104,000
3	\$325,000	$\times$ 0.19 =	61,750
4	\$325,000	$\times$ 0.12 =	39,000
5	\$325,000	$\times$ 0.12 =	39,000
6	\$325,000	$\times$ 0.05 =	16,250

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

Learning Goal 2: Discuss the firm's statement of cash flows, operating cash flow, and free cash flow.

- 1) Free cash flow (FCF) is the cash flow a firm generates from its normal operations; calculated as EBIT - taxes + depreciation.

Answer: FALSE

Topic: Free Cash Flow

Question Status: Previous Edition

- 2) The finance definition of operating cash flow excludes interest as an operating flow.

Answer: TRUE

Topic: Operating Cash Flow

Question Status: Previous Edition

- 3) The net fixed asset investment (NFAI) is defined as the change in net fixed assets plus depreciation.

Answer: TRUE

Topic: Free Cash Flow

Question Status: Previous Edition

- 4) The net current asset investment (NCAI) is defined as the change in current assets minus the change in sum of the accounts payable and accruals.

Answer: TRUE

Topic: Free Cash Flow

Question Status: Previous Edition

- 5) In the statement of cash flows, the financing flows are cash flows that result from debt and equity financing transactions, including incurrence and repayment of debt, cash inflow from the sale of stock, and cash outflows to repurchase stock or pay cash dividends.

Answer: TRUE

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 6) Operating cash flow (OCF) is equal to the firm's net operating profits after taxes minus all non-cash charges.

Answer: FALSE

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 7) In the statement of cash flows, cash flows from operating activities are cash flows directly related to purchase and sale of fixed assets.

Answer: FALSE

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 8) Depreciation is considered to be an outflow of cash since the cash must be drawn from somewhere.

Answer: FALSE

Topic: Inflows and Outflows of Cash

Question Status: Previous Edition

- 9) The statement of cash flows allows the financial manager and other interested parties to analyze the firm's past and possibly future profitability.

Answer: FALSE

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 10) To assess whether any developments have occurred that are contrary to the company's financial policies, the financial manager should pay special attention to both the major categories of cash flow and the individual items of cash inflow and outflow.

Answer: TRUE

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 11) It would be correct to define Operating Cash Flow (OCF) as net operating profit after taxes plus depreciation.

Answer: TRUE

Topic: Operating Cash Flow

Question Status: Previous Edition

- 12) It would be correct to define Operating Cash Flow (OCF) as net operating profit after taxes minus depreciation.

Answer: FALSE

Topic: Operating Cash Flow

Question Status: Previous Edition

- 13) Net operating profit after taxes (NOPAT) represents the firm's earnings before interest and after taxes.

Answer: TRUE

Topic: Operating Cash Flow

Question Status: Previous Edition

- 14) Net operating profit after taxes (NOPAT) represents the firm's earnings after deducting both interest taxes.

Answer: FALSE

Topic: Operating Cash Flow

Question Status: Previous Edition

- 15) The firm's free cash flow (FCF) represents the amount of cash flow available to investors (stockholders and bondholders) after the firm has met all operating needs and after having paid for net fixed asset investments and net current asset investments.

Answer: TRUE

Topic: Free Cash Flow

Question Status: Previous Edition

- 16) The firm's free cash flow (FCF) represents the amount of cash flow available to pay bank loans after the firm has met all operating needs and after having paid for net fixed asset investments and net current asset investments.

Answer: FALSE

Topic: Free Cash Flow

Question Status: Previous Edition

- 17) Because the typical cash budget shows cash flows only on a monthly basis, the information provided by the cash budget is not necessarily adequate for ensuring solvency.

Answer: TRUE

Topic: Cash Flow Analysis

Question Status: Previous Edition

- 18) Because the typical cash budget shows cash flows on a monthly basis, the information provided by the cash budget is adequate for ensuring solvency.

Answer: FALSE

Topic: Cash Flow Analysis

Question Status: Previous Edition

- 19) A firm's operating cash flow (OCF) is defined as
- A) gross profit minus operating expenses.
 - B) gross profit minus depreciation.
 - C) EBIT times one minus the tax rate plus depreciation.
 - D) EBIT plus depreciation.

Answer: C

Topic: Operating Cash Flow

Question Status: Previous Edition

- 20) All of the following are non-cash charges EXCEPT
- A) depreciation.
 - B) accruals.
 - C) depletion.
 - D) amortization.

Answer: B

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 21) Which of the following is a source of cash flows?
- A) Cost of goods sold.
 - B) Depreciation.
 - C) Interest expense.
 - D) Taxes.

Answer: B

Topic: Depreciation and Cash Flows

Question Status: Previous Edition

- 22) _____ is an expense that is a legal obligation of the firm.
- A) Labor expense
 - B) Interest expense
 - C) Salaries expense
 - D) Rent expense

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 23) In the statement of cash flows, retained earnings are handled through the adjustment of which two accounts?
- A) Revenue and cost.
 - B) Assets and liabilities.
 - C) Depreciation and purchases.
 - D) Net profits and dividends.

Answer: D

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 24) The cash flows from operating activities section of the statement of cash flows considers
- A) interest expense.
 - B) cost of raw materials.
 - C) dividends paid.
 - D) stock repurchases.

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 25) The cash flows from operating activities section of the statement of cash flows considers
- A) labor expense.
 - B) interest expense.
 - C) taxes paid.
 - D) dividends paid.

Answer: A

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 26) The statement of cash flows includes all of the following categories EXCEPT
- A) operating flows.
 - B) investment flows.
 - C) financing flows.
 - D) equity flows.

Answer: D

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 27) The statement of cash flows provides a summary of the firm's
- A) cash flows from operating activities.
 - B) cash inflows from financing activities.
 - C) cash flows from investment activities.
 - D) all of the above.

Answer: D

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 28) All of the following are inflows of cash EXCEPT
- A) a decrease in accounts receivable.
 - B) net profits after taxes.
 - C) an increase in accounts receivable.
 - D) an increase in accruals.

Answer: C

Topic: Inflows and Outflows of Cash

Question Status: Previous Edition

29) All of the following are outflows of cash EXCEPT

- A) an increase in inventory.
- B) a decrease in accounts receivable.
- C) an increase in accounts receivable.
- D) a decrease in notes payable.

Answer: B

Topic: Inflows and Outflows of Cash

Question Status: Previous Edition

30) Three important line items on the statement of cash flows that must be obtained from the income statement include all of the following EXCEPT

- A) depreciation and any non-cash charges.
- B) interest expenses.
- C) net profits after taxes.
- D) cash dividends paid on both preferred and common stocks.

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

31) Cash flows directly related to production and sale of the firm's products and services are called

- A) operating flows.
- B) investment flows.
- C) financing flows.
- D) none of the above.

Answer: A

Topic: Statement of Cash Flows

Question Status: Previous Edition

32) Cash flows associated with the purchase and sale of fixed assets and business interests are called

- A) operating flows.
- B) investment flows.
- C) financing flows.
- D) none of the above.

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

33) Cash flows that result from debt and equity financing transactions, including incurrence and repayment of debt, cash inflows from the sale of stock, and cash outflows to pay cash dividends or repurchase stock are called

- A) operating flows.
- B) investment flows.
- C) financing flows.
- D) none of the above.

Answer: C

Topic: Statement of Cash Flows

Question Status: Previous Edition

Table 3.1

Ruff Sandpaper Co.
Balance Sheets
For the Years Ended 2002 and 2003

	2003	2002
Assets		
Cash	800	600
Marketable securities	200	200
Accounts receivable	1,200	1,000
Inventories	2,000	1,800
Gross fixed assets	3,000	2,800
Less Accumulated Depreciation	<u>1,000</u>	<u>800</u>
Net fixed assets	<u>2,000</u>	<u>2,000</u>
Total assets	6,200	5,600
Liabilities		
Accounts payable	200	100
Notes payable	800	900
Accruals	100	100
Long-term debt	2,000	1,500
Stockholders' equity		
Common stock at par	500	500
Paid-in capital in excess of par	2,000	2,000
Retained earnings	<u>600</u>	<u>500</u>
Total liabilities and equity	<u>6,200</u>	<u>5,600</u>
Net profits after taxes for 2003: \$150.00		

34) The largest single source of funds for the firm in 2003 is (See Table 3.1)

- A) an increase in net profits after taxes.
- B) an increase in notes payable.
- C) an increase in long-term debt.
- D) an increase in inventory.

Answer: C

Topic: Statement of Cash Flows

Question Status: Previous Edition

35) Common stock dividends paid in 2003 amounted to _____. (See Table 3.1)

- A) \$100
- B) \$50
- C) \$600
- D) \$150

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 36) The firm may have increased long-term debts to finance (See Table 3.1)
- A) an increase in gross fixed assets.
 - B) an increase in current assets.
 - C) a decrease in notes payable.
 - D) all of the above.

Answer: D

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 37) The firm _____ fixed assets worth _____. (See Table 3.1)
- A) purchased; \$0
 - B) purchased; \$200
 - C) sold; \$0
 - D) sold; \$200

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 38) The firm's cash flow from operating activities is _____. (See Table 3.1)
- A) \$50
 - B) \$350
 - C) \$150
 - D) \$200

Answer: A

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 39) The depreciation expense for 2003 is _____. (See Table 3.1)
- A) \$0
 - B) \$200
 - C) \$50
 - D) \$1,000

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 40) A corporation sold a fixed asset for \$100,000. This is
- A) an investment cash flow and a source of funds.
 - B) an operating cash flow and a source of funds.
 - C) an operating cash flow and a use of funds.
 - D) an investment cash flow and a use of funds.

Answer: A

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 41) A corporation raises \$500,000 in long-term debt to acquire additional plant capacity. This is considered
- A) an investment cash flow.
 - B) a financing cash flow.
 - C) a financing cash flow and investment cash flow, respectively.
 - D) a financing cash flow and operating cash flow, respectively.

Answer: C

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 42) All of the following are financing cash flows EXCEPT
- A) sale of stock.
 - B) payment of bonuses.
 - C) increasing debt.
 - D) repurchasing stock.

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 43) All of the following are operating cash flows EXCEPT
- A) net profit/earnings after tax.
 - B) increase or decrease in current liabilities.
 - C) increase or decrease in fixed assets.
 - D) depreciation expense.

Answer: C

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 44) For the year ended December 31, 2008, a corporation had cash flow from operating activities of -\$10,000, cash flow from investment activities of \$4,000, and cash flow from financing activities of \$9,000. The Statement of Cash Flows would show a
- A) net decrease of \$3,000 in cash and marketable securities.
 - B) net decrease of \$5,000 in cash and marketable securities.
 - C) net increase of \$3,000 in cash and marketable securities.
 - D) net increase of \$5,000 in cash and marketable securities.

Answer: C

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 45) For the year ended December 31, 2008, a corporation had cash flow from operating activities of \$20,000, cash flow from investment activities of -\$15,000, and cash flow from financing activities of -\$10,000. The Statement of Cash Flows would show a
- A) net increase of \$5,000 in cash and marketable securities.
 - B) net decrease of \$5,000 in cash and marketable securities.
 - C) net decrease of \$15,000 in cash and marketable securities.
 - D) net increase of \$25,000 in cash and marketable securities.

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 46) For the year ended December 31, 2008, a corporation had cash flow from operating activities of \$12,000, cash flow from investment activities of - \$10,000, and cash flow from financing activities of \$4,000. The Statement of Cash Flows would show a
- A) net decrease of \$18,000 in cash and marketable securities.
 - B) net decrease of \$6,000 in cash and marketable securities.
 - C) net increase of \$6,000 in cash and marketable securities.
 - D) net increase of \$2,000 in cash and marketable securities.

Answer: C

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 47) A firm has just ended the calendar year making a sale in the amount of \$200,000 of merchandise purchased during the year at a total cost of \$150,500. Although the firm paid in full for the merchandise during the year, it has yet to collect at year end from the customer. One possible problem this firm may face is
- A) low profitability.
 - B) insolvency.
 - C) inability to receive credit.
 - D) high leverage.

Answer: B

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 48) Calculate net operating profit after taxes (NOPAT) if a firm has sales of \$1,000,000, operating profit (EBIT) of \$100,000, interest expense of \$50,000, and a tax rate of 30%.
- A) \$35,000.
 - B) \$700,000.
 - C) \$70,000.
 - D) none of the above.

Answer: C

Topic: Free Cash Flow (Equation 3.2)

Question Status: Previous Edition

- 49) Calculate a firm's free cash flow if it has net operating profit after taxes of \$60,000, depreciation expense of \$10,000, net fixed asset investment requirement of \$40,000, a net current asset requirement of \$30,000 and a tax rate of 30%.
- A) \$0.
 - B) \$30,000.
 - C) -\$30,000.
 - D) none of the above.

Answer: A

Topic: Free Cash Flow (Equation 3.5)

Question Status: Previous Edition

- 50) NICO Corporation had net fixed assets of \$2,000,000 at the end of 2006 and \$1,800,000 at the end of 2005. In addition, the firm had a depreciation expense of \$200,000 during 2006 and \$180,000 during 2005. Using this information, NICO's net fixed asset investment for 2006 was

A) \$20,000.
B) \$0.
C) \$380,000.
D) \$400,000.

Answer: D

Topic: Free Cash Flow (Equation 3.6)

Question Status: Previous Edition

- 51) NICO Corporation had net current assets of \$2,000,000 at the end of 2006 and \$1,800,000 at the end of 2005. In addition, NICO had net spontaneous current liabilities of \$1,000,000 in 2006 and \$1,500,000 in 2005. Using this information, NICO's net current asset investment for 2006 was

A) \$700,000.
B) -\$300,000.
C) \$300,000.
D) -\$700,000.

Answer: B

Topic: Free Cash Flow (Equation 3.7)

Question Status: Previous Edition

- 52) During 2006, NICO Corporation had EBIT of \$100,000, a change in net fixed assets of \$400,000, an increase in net current assets of \$100,000, an increase in spontaneous current liabilities of \$400,000, a depreciation expense of \$50,000, and a tax rate of 30%. Based on this information, NICO's free cash flow is

A) -\$630,000.
B) -\$50,000.
C) \$650,000.
D) -\$30,000.

Answer: D

Topic: Free Cash Flow (Equation 3.5)

Question Status: Previous Edition

53) Given the financial data for New Electronic World, Inc. (NEW), compute the following measures of cash flows for the NEW for the year ended December 31, 2005

- (a) Operating Cash Flow.
- (b) Free Cash Flow.

For the year ended December 31,		
	2004	2005
Depreciation		\$ 3,000
EBIT		30,000
Interest Expenses		3,000
Taxes		8,000
Cash	\$21,000	24,000
Accounts Receivable	39,000	45,000
Inventory	27,000	30,000
Net fixed assets	22,000	24,000
Accounts payable	25,000	30,000
Notes payable	50,000	40,000
Accruals	1,000	2,000

Answer: (a) $OCF = EBIT - \text{Taxes} + \text{Depreciation}$

$$OCF = \$30,000 - \$8,000 + \$3,000 = \$35,000$$

(b) $FCF = OCF - \text{Net fixed asset investment (NFAI)} - \text{Net current asset investment (NCAI)}$

$$NFAI = \text{Change in net fixed assets} + \text{Depreciation}$$

$$= (24,000 - 22,000) + 3,000 = \$5,000$$

$$NCAI = \text{Change in current assets} - \text{change in (Accounts payable + Accruals)}$$

$$= (99,000 - 87,000) - (32,000 - 26,000)$$

$$= \$6,000$$

$$FCF = 35,000 - 5,000 - 6,000 = \$24,000$$

Topic: Operating Cash Flows and Free Cash Flows (Equation 3.4 and 3.5)

Question Status: Previous Edition

- 54) Identify each expense or revenue as a cash flow from operating activities (O), a cash flow from investment activities (I), or a cash flow from financing activities (F).

Administrative expenses

Rent payment

Interest on a note payable

Interest on a note receivable

Sale of equipment

Dividend payment

Stock repurchase

Sale of finished goods

Labor expense

Sale of a bond issue

Repayment of a long-term debt

Selling expenses

Depreciation expense

Sale of common stock

Purchase of fixed assets

Answer:

Administrative expenses.....	O
Rent payment.....	O
Interest on a note payable.....	F
Interest on a note receivable.....	F
Sale of equipment.....	I
Dividend payment.....	F
Stock repurchase.....	F
Sale of finished goods.....	O
Labor expense.....	O
Sale of a bond issue.....	F
Repayment of a long-term debt.....	F
Selling expenses.....	O
Depreciation expense.....	O
Sale of common stock.....	F
Purchase of fixed assets.....	I

Topic: Statement of Cash Flows

Question Status: Previous Edition

- 55) Calculate the change in the key balance sheet accounts between 2004 and 2005 and classify each as a source (S), a use (U), or neither (N), and indicate which type of cash flow it is: an operating cash flow (O), and investment cash flow (I) or a financing cash flow (F).

ABC Corp.

**Balance Sheet Changes and Classification
of Key Accounts between 2004 and 2005**

Account	2005	2004	Change	Classification	Type
Long-term debts	\$ 960	\$ 800			
Accounts receivable	640	500			
Common stock	200	200			
Cash	640	500			
Retained earnings	960	800			
Accruals	50	200			
Inventory	840	600			
Accounts payable	1,150	1,000			
Net fixed assets	1,800	2,000			

Answer:

ABC Corp.

**Balance Sheet Changes and Classification
of Key Accounts between 2004 and 2005**

Account	2005	2004	Chng.	Classif.	Type
Long-term debts	\$ 960	\$ 800	+160	S	F
Accounts receivable	640	500	+140	U	O
Common stock	200	200	0	N	F
Cash	640	500	+140	U	O
Retained earnings	960	800	+160	S	O/F
Accruals	50	200	-150	U	O
Inventory	840	600	+240	U	O
Accounts payable	1,150	1,000	+150	S	O
Net fixed assets	1,800	2,000	-200	S	I

Topic: Statement of Cash Flows

Question Status: Revised

Table 3.2

Magna Fax, Inc.	
Income Statement	
For the Year Ended December 31, 2005	
Sales revenue	\$150,000
Cost of goods sold	<u>117,500</u>
Gross Profits	\$32,500
Selling expense	4,500
General and administrative expense	4,000
Depreciation expense	<u>4,000</u>
Operating profits	\$ 20,000
Interest expense	<u>2,500</u>
Net profit before taxes	\$ 17,500
Taxes (40%)	<u>7,000</u>
Net profit after taxes	\$ 10,500

Magna Fax, Inc.		
Balance Sheet		
For the Years Ended December 31, 2004 and 2005		
	2005	2004
Assets		
Cash	\$24,000	\$21,000
Accounts receivable	45,000	39,000
Inventory	30,000	27,000
Gross fixed assets	\$42,000	\$40,000
Acc. Depreciation	<u>22,000</u>	<u>18,000</u>
Net fixed assets	<u>20,000</u>	<u>22,000</u>
Total assets	\$119,000	\$109,000
Liabilities and Equity		
Accounts payable	\$25,000	\$30,000
Notes payable	50,000	40,000
Accruals	1,000	2,000
Long-term debts	10,000	8,000
Common stock at par	1,000	1,000
Paid-in capital in excess of par	4,000	4,000
Retained earnings	<u>28,000</u>	<u>24,000</u>
Total liabilities and equity	\$119,000	\$109,000

- 56) The credit manager at First National Bank has just received the income statement and balance sheet for Magna Fax, Inc. for the year ended December 31, 2005. (See Table 3.2.) The bank requires the firm to report its earnings performance and financial position quarterly as a condition of a loan agreement. The bank's credit manager must prepare two key financial statements based on the information sent by Magna Fax, Inc. This will be passed on to the commercial loan officer assigned to this account, so that he may review the financial condition of the firm.
- (a) Prepare a statement of retained earnings for the year ended December 31, 2005.
 - (b) Prepare a summary of cash inflows and cash outflows for the year ended December 31, 2005.
 - (c) Prepare a statement of cash flows for the year ended December 31, 2005, organized by cash flow from operating activities, cash flow from investment activities, and cash flow from financing activities.

Answer: (a)

Magna Fax, Inc.
Statement of Retained Earnings
For the Year Ended December 31, 2005

Retained Earnings Balance (December 31, 2004)	\$24,000
Net profits after taxes	+ 10,500
Dividends	<u>-6,500</u>
Retained Earnings Balance (December 31, 2005)	<u>\$28,000</u>

(b)

Magna Fax, Inc.
Statement of Cash Flows
For the Year Ended December 31, 2005

Cash Inflows		Cash Outflows	
Net profits		Dividends paid	\$6,500
after taxes	\$10,500	Inc. in cash	3,000
Depreciation	4,000	Inc. in acct. Rec	6,000
Inc. in Notes Payable	10,000	Inc. in Inventory	3,000
Inc. in LT debts	2,000	Inc. in Fixed Asset	2,000
		Dec. in Acct Pay.	5,000
		Dec. in accruals	<u>1,000</u>
Total Inflows	<u>\$26,500</u>	Total Outflows	<u>\$26,500</u>

(c)

Magna Fax, Inc.
Statement of Cash Flows
For the Year Ended December 31, 2005

Cash flow from operating activities:	
Net profits after taxes	\$10,500
Depreciation	4,000
Inc. in Accounts Receivable	-6,000
Inc. in Inventory	-3,000
Dec. in Accounts Payable	-5,000
Dec. in Accruals	<u>-1,000</u>
	-\$ 500
Cash flow from investment activities:	
Inc. in gross fixed assets	-2,000
Changes in business interest	<u>0</u>
	-\$2,000
Cash flow from financing activities:	
Inc. in notes payable	\$10,000
Inc. in long-term debts	2,000
Changes in S.E.	0
Dividends paid	<u>-6,500</u>
	\$5,500
Net increase in cash & marketable sec.	<u>\$3,000</u>

Topic: Statement of Cash Flows

Question Status: Previous Edition

Learning Goal 3: Understand the financial planning process, including long-term (strategic) financial plans and short-term (operating) financial plans.

- 1) The strategic financial plans are planned long-term financial actions and the anticipated financial impact of those actions.

Answer: TRUE

Topic: Financial Planning Process

Question Status: Previous Edition

- 2) The financial planning process begins with short-run, or operating, plans and budgets that in turn guide the formulation of long-run, or strategic, financial plans.

Answer: FALSE

Topic: Financial Planning Process

Question Status: Previous Edition

- 3) Operating financial plans are planned short-term financial actions and the anticipated financial impact of those actions.

Answer: TRUE

Topic: Financial Planning Process

Question Status: Previous Edition

- 4) Generally, firms that are subject to high degrees of operating uncertainty, relatively short production cycles, or both tend to use a shorter planning horizon.

Answer: TRUE

Topic: Financial Planning Process

Question Status: Previous Edition

- 5) The financial planning process begins with _____ financial plans that in turn guide the formation of _____ plans and budgets.

- A) short-run; long-run
- B) short-run; operating
- C) long-run; strategic
- D) long-run; short-run

Answer: D

Topic: Financial Planning Process

Question Status: Previous Edition

- 6) Short-run financial plans and long-run financial plans generally cover periods ranging from _____ years and _____ years, respectively.

- A) one to two; two to ten
- B) two to ten; one to two
- C) one to five; five to ten
- D) one to three; three to five

Answer: A

Topic: Financial Planning Process

Question Status: Previous Edition

- 7) The key output(s) of the short-run financial planning process are a(n)
- A) cash budget, pro forma income statement, and pro forma balance sheet.
 - B) cash budget, sales forecast, and income statement.
 - C) sales forecast and cash budget.
 - D) income statement, balance sheet, and source and use statement.

Answer: A

Topic: Financial Planning Process

Question Status: Previous Edition

- 8) The key aspects of the financial planning process are
- A) cash planning and investment planning.
 - B) cash planning and financing.
 - C) investment planning and profit planning.
 - D) cash planning and profit planning.

Answer: D

Topic: Financial Planning Process

Question Status: Previous Edition

- 9) Pro forma statements are used for
- A) cash budgeting.
 - B) credit analysis.
 - C) profit planning.
 - D) leverage analysis.

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 10) Which of the following would be the least likely to utilize pro forma financial statements or a cash budget?
- A) Top management.
 - B) Middle management.
 - C) Investors.
 - D) Lenders.

Answer: C

Topic: Financial Planning Process

Question Status: Previous Edition

- 11) _____ generally reflect(s) the anticipated financial impact of planned long-term actions.
- A) A cash budget
 - B) Strategic financial plans
 - C) Operating financial plans
 - D) A pro forma income statement

Answer: B

Topic: Financial Planning Process

Question Status: Previous Edition

- 12) The _____ is a financial projection of the firm's short-term cash surpluses or shortages.
- A) operating financial plan
 - B) cash budget
 - C) strategic financial journal
 - D) capital assets journal

Answer: B

Topic: Cash Planning Process

Question Status: Previous Edition

- 13) The primary purpose in preparing pro forma financial statements is
- A) for cash planning.
 - B) to ensure the ability to pay dividends.
 - C) for risk analysis.
 - D) for profit planning.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 14) The primary purpose in preparing a cash budget is
- A) for profit planning.
 - B) for cash planning.
 - C) for risk analysis.
 - D) to estimate sales.

Answer: B

Topic: Cash Planning Process

Question Status: Previous Edition

- 15) In general, firms that are subject to a high degree of _____, relatively short production cycles, or both tend to use shorter planning horizons.
- A) profitability
 - B) financial certainty
 - C) operating uncertainty
 - D) financial planning

Answer: C

Topic: Financial Planning Process

Question Status: Previous Edition

- 16) _____ consider proposed fixed-asset outlays, research and development activities, marketing and product development actions, and both the mix and major sources of financing.
- A) Short-term financial plans
 - B) Long-term financial plans
 - C) Pro-forma statements
 - D) Cash budgeting

Answer: B

Topic: Financial Planning Process

Question Status: Previous Edition

Learning Goal 4: Discuss the cash-planning process and the preparation, evaluation, and use of the cash budget.

- 1) Cash budget is a statement of the firm's planned inflows and outflows of cash that is used to estimate its long-term cash requirement.

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 2) Cash planning involves the preparation of the firm's cash budget. Without adequate cash ☐ regardless of the level of profits ☐ any firm could fail.

Answer: TRUE

Topic: Cash Planning Process

Question Status: Previous Edition

- 3) Cash budgets and pro forma statements are useful not only for internal financial planning but also are routinely required by the Internal Revenue Service (IRS).

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 4) The sales forecast, cash budget, and pro forma financial statements are the key outputs of the short-run (operating) financial planning.

Answer: FALSE

Topic: Financial Planning Process

Question Status: Previous Edition

- 5) The cash budget gives the financial manager a clear view of the timing of the firm's expected profitability over a given period.

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 6) An internal sales forecast is based on the relationships that can be observed between the firm's sales and certain key economic indicators such as the gross domestic product, new housing starts, or disposable personal income.

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 7) Since depreciation and other non-cash charges represent a scheduled write-off of an earlier cash outflow, they should NOT be included in the cash budget.

Answer: TRUE

Topic: Cash Planning Process

Question Status: Previous Edition

- 8) In cash budgeting, the impact of depreciation is reflected in a reduction in tax payments.

Answer: TRUE

Topic: Cash Planning Process

Question Status: Previous Edition

- 9) In cash budgeting, other cash receipts are cash receipts expected to result from sources other than sales. Items such as interest and dividend income, proceeds from the sale of equipment, depreciation expense, and stock and bond sales proceeds are examples of other cash receipts.

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 10) A firm's net cash flow is the mathematical difference between the firm's beginning cash and its cash disbursements in each period.

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 11) The number and type of intervals in the cash budget depend on the nature of the business. The more seasonal and uncertain a firm's cash flows, the greater the number of intervals and the shorter time intervals.

Answer: TRUE

Topic: Cash Planning Process

Question Status: Previous Edition

- 12) The excess cash balance is the amount available for investment by the firm if the desired minimum cash balance is less than the period's ending cash.

Answer: TRUE

Topic: Cash Planning Process

Question Status: Previous Edition

- 13) The financial manager may cope with uncertainty and make more intelligent short-term financial decisions by preparing several cash budgets, each based on differing assumptions.

Answer: TRUE

Topic: Cash Planning Process

Question Status: Previous Edition

- 14) The required total financing figures in the cash budget refer to the monthly changes in borrowing.

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 15) If the net cash flow is less than the minimum cash balance, financing is required.

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 16) Required financing and excess cash are typically viewed as short-term. Therefore, required financing may be represented by notes payable and excess cash is assumed invested in a liquid, interest-paying vehicle such as marketable securities.

Answer: TRUE

Topic: Cash Planning Process

Question Status: Previous Edition

- 17) In the development of proforma statements, a firm that requires external funds means that the firm's projected level of cash is in excess of its needs and that funds would therefore be available for repaying debt, repurchasing stock, or increasing the dividend to stockholders.

Answer: FALSE

Topic: Cash Planning Process

Question Status: Previous Edition

- 18) _____forecast is based on the relationships between the firm's sales and certain economic indicators.

- A) An internal
- B) An external
- C) A sales
- D) A pro forma

Answer: B

Topic: Financial Planning Process

Question Status: Previous Edition

- 19) Key inputs to short-term financial planning are

- A) operating budgets.
- B) economic forecasts.
- C) sales forecasts, and operating and financial data.
- D) leverage analysis.

Answer: C

Topic: Financial Planning Process

Question Status: Previous Edition

- 20) Once sales are forecasted,_____must be generated to estimate a variety of operating costs.

- A) a production plan
- B) a cash budget
- C) an operating budget
- D) a pro forma statement

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

- 21) The key input to any cash budget is

- A) the sales forecast.
- B) the production plan.
- C) the pro forma balance sheet.
- D) the current tax laws.

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

22) _____ forecast is based on a buildup, or consensus, of sales forecasts through the firm's own sales channels, adjusted for additional factors such as production capabilities.

- A) An internal sales
- B) An external sales
- C) A sales
- D) A pro forma

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

23) The firm's final sales forecast is usually a function of

- A) economic forecasts.
- B) salesperson's estimates of demand.
- C) internal and external factors in combination.
- D) accounts receivable experience.

Answer: C

Topic: Cash Planning Process

Question Status: Previous Edition

24) In cash budgeting, the _____ seasonal and uncertain a firm's cash flows, the _____ the number of budgeting intervals it should use.

- A) more; greater
- B) more; fewer
- C) less; greater
- D) less; fewer

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

25) The key input to the short-run financial planning process is

- A) the cash budget.
- B) the cash forecast.
- C) the sales forecast.
- D) the pro forma income statement.

Answer: C

Topic: Financial Planning Process

Question Status: Previous Edition

26) Of the following componenets of a cash budget, generally the easiest to estimate would be

- A) cash sales.
- B) cash receipts.
- C) cash disbursements.
- D) month-to-month short-term borrowing.

Answer: C

Topic: Cash Planning Process

Question Status: Previous Edition

- 27) A firm has projected sales in May, June, and July of \$100, \$200, and \$300, respectively. The firm makes 20 percent of sales for cash and collects the balance one month following the sale. The firm's total cash receipts in July
- A) are \$220.
 - B) are \$200.
 - C) are \$180.
 - D) cannot be determined with the information provided.

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

- 28) Cash disbursements may include all of the following EXCEPT
- A) tax payments.
 - B) rent payments.
 - C) depreciation expense.
 - D) fixed asset outlays.

Answer: C

Topic: Cash Planning Process

Question Status: Previous Edition

- 29) One way a firm can reduce the amount of cash it needs in any one month is to
- A) slow down the payment of receivables.
 - B) delay the payment of wages.
 - C) accrue taxes.
 - D) speed up payment of accounts payable.

Answer: B

Topic: Cash Planning Process

Question Status: Previous Edition

- 30) A projected excess cash balance for the month may be
- A) financed with short-term securities.
 - B) financed with long-term securities.
 - C) invested in marketable securities.
 - D) invested in long-term securities.

Answer: C

Topic: Cash Planning Process

Question Status: Previous Edition

- 31) If a firm expects short-term cash surpluses it can plan
- A) long-term investments.
 - B) short-term borrowing.
 - C) short-term investments.
 - D) leverage decisions.

Answer: C

Topic: Cash Planning Process

Question Status: Previous Edition

- 32) A firm has actual sales in November of \$1,000 and projected sales in December and January of \$3,000 and \$4,000, respectively. The firm makes 10 percent of its sales for cash, collects 40 percent of its sales one month following the sale, and collects the balance two months following the sale. The firm's total cash receipts in November
- A) are \$1,000.
 - B) are \$100.
 - C) are \$700.
 - D) cannot be determined with the information provided.

Answer: D

Topic: Cash Planning Process

Question Status: Previous Edition

- 33) A firm has actual sales in November of \$1,000 and projected sales in December and January of \$3,000 and \$4,000, respectively. The firm makes 10 percent of its sales for cash, collects 40 percent of its sales one month following the sale, and collects the balance two months following the sale. The firm's total expected cash receipts in January
- A) are \$700.
 - B) are \$2,100.
 - C) are \$1,900.
 - D) cannot be determined with the information provided.

Answer: B

Topic: Cash Planning Process

Question Status: Previous Edition

- 34) In April, a firm had an ending cash balance of \$35,000. In May, the firm had total cash receipts of \$40,000 and total cash disbursements of \$50,000. The minimum cash balance required by the firm is \$25,000. At the end of May, the firm had
- A) an excess cash balance of \$25,000.
 - B) an excess cash balance of \$0.
 - C) required financing of \$10,000.
 - D) required financing of \$25,000.

Answer: B

Topic: Cash Planning Process

Question Status: Previous Edition

- 35) In October, a firm had an ending cash balance of \$35,000. In November, the firm had a net cash flow of \$40,000. The minimum cash balance required by the firm is \$25,000. At the end of November, the firm had
- A) an excess cash balance of \$50,000.
 - B) an excess cash balance of \$75,000.
 - C) required total financing of \$15,000.
 - D) required total financing of \$5,000.

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

- 36) In the month of August, a firm had total cash receipts of \$10,000, total cash disbursements of \$8,000, depreciation expense of \$1,000, a minimum cash balance of \$3,000, and a beginning cash balance of \$500. The ending cash balance for August totals
- A) \$1,500.
 - B) \$5,500.
 - C) \$2,500.
 - D) \$3,500.

Answer: C

Topic: Cash Planning Process

Question Status: Previous Edition

- 37) In the month of August, a firm had total cash receipts of \$10,000, total cash disbursements of \$8,000, depreciation expense of \$1,000, a minimum cash balance of \$3,000, and a beginning cash balance of \$500. The excess cash balance (required financing) for August is
- A) required total financing of \$500.
 - B) excess cash balance of \$5,500.
 - C) excess cash balance of \$500.
 - D) required total financing of \$2,500.

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

- 38) Gerry Jacobs, a financial analyst for Best Valu Supermarkets, has prepared the following sales and cash disbursement estimates for the period August through December of the current year.

Month	Sales	Cash Disbursements
August	\$400	\$300
September	500	500
October	500	700
November	600	400
December	700	500

Ninety percent of sales are for cash, the remaining 10 percent are collected one month later. All disbursements are on a cash basis. The firm wishes to maintain a minimum cash balance of \$50. The beginning cash balance in September is \$25. Prepare a cash budget for the months of October, November, and December, noting any needed financing or excess cash available.

Answer:

A Cash Budget for Best Valu Supermarkets				
	Sept.	Oct.	Nov.	Dec.
Cash receipts				
Sales (cash 90%)	\$450	\$450	\$540	\$630
Sales Collected (1 mo. lag 10%)	<u>40</u>	<u>50</u>	<u>50</u>	<u>60</u>
Total cash receipts	\$490	\$500	\$590	\$690
Total cash disbursements	<u>500</u>	<u>700</u>	<u>400</u>	<u>500</u>
Net cash flow	(10)	(200)	190	190
Beg. cash balance	<u>25</u>	<u>15</u>	<u>(185)</u>	<u>5</u>
Ending cash balance	15	(185)	5	195
Minimum balance	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>
Required financing	35	235	45	
excess cash				145

Best Valu Supermarkets should arrange for a line of credit for at least \$235 during the four month period.

Topic: Cash Flow Analysis

Question Status: Previous Edition

39) Terrel Manufacturing expects stable sales through the summer months of June, July, and August of \$500,000 per month. The firm will make purchases of \$350,000 per month during these months. Wages and salaries are estimated at \$60,000 per month plus 7 percent of sales. The firm must make a principal and interest payment on an outstanding loan in June of \$100,000. The firm plans a purchase of a fixed asset costing \$75,000 in July. The second quarter tax payment of \$20,000 is also due in June. All sales are for cash.

- Construct a cash budget for June, July, and August, assuming the firm has a beginning cash balance of \$100,000 in June.
- The sales projections may not be accurate due to the lack of experience by a newly-hired sales manager. If the sales manager believes the most optimistic and pessimistic estimates of sales are \$600,000 and \$400,000, respectively, what are the monthly net cash flows and required financing or excess cash balances?

Answer:

Multiple Cash Budgets			
	June		
	Pessimistic	Most Likely	Optimistic
Sales (cash)	\$400,000	\$500,000	\$600,000
Less: Cash Disbursements			
Purchases	350,000	350,000	350,000
Wages & Salaries	60,000	60,000	60,000
Variable portion (W&S)	28,000	35,000	42,000
Principal & Interest	100,000	100,000	100,000
Purchase of fixed assets			
Tax payment	20,000	20,000	20,000
Total cash disbursement	\$558,000	\$565,000	\$572,000
Net cash flow	(158,000)	(65,000)	28,000
Add: Beg. cash	100,000	100,000	100,000
Ending cash	(58,000)	35,000	128,000
Less: Min cash			
Required financing	58,000		
Excess cash		35,000	128,000

	July		
	Pessimistic	Most Likely	Optimistic
Sales (cash)	\$400,000	\$500,000	\$600,000
Less: Cash Disbursements			
Purchases	350,000	350,000	350,000
Wages & Salaries	60,000	60,000	60,000
Variable portion (W&S)	28,000	35,000	42,000
Principal & Interest			
Purchase of fixed assets	75,000	75,000	75,000
Tax payment			
Total cash disbursement	\$513,000	\$520,000	\$527,000
Net cash flow	(113,000)	(20,000)	73,000
Add: Beg. cash	(58,000)	35,000	128,000
Ending cash	(171,000)	15,000	201,000
Less: Min cash			
Required financing	171,000		
Excess cash		35,000	128,000

	August		
	Pessimistic	Most Likely	Optimistic
Sales (cash)	\$400,000	\$500,000	\$600,000
Less: Cash Disbursements			
Purchases	350,000	350,000	350,000
Wages & Salaries	60,000	60,000	60,000
Variable portion (W&S)	28,000	35,000	42,000
Principal & Interest			
Purchase of fixed assets			
Tax payment			
Total cash disbursement	<u>\$438,000</u>	<u>\$445,000</u>	<u>\$452,000</u>
Net cash flow	(38,000)	(55,000)	148,000
Add: Beg. cash	<u>171,000</u>	<u>15,000</u>	<u>201,000</u>
Ending cash	(209,000)	70,000	349,000
Less: Min cash			
Required financing	209,000		
Excess cash		70,000	349,000

If the most pessimistic sales figure (\$400,000) materializes, the financial manager should expect a financing requirement of \$209,000 and should arrange for a line of credit to cover the firm's cash deficit. However, if the most optimistic estimate materializes, the financial manager will need to arrange for investing a total of \$349,000 over the three month period.

Topic: Cash Flow Analysis

Question Status: Previous Edition

- 40) In preparation for the quarterly cash budget, the following revenue and cost information have been compiled. Prepare and evaluate a cash budget for the months of October, November, and December based on the information shown below.

Month	Sales	Purchases
August (actual)	\$3,000,000	\$3,500,000
September (actual)	\$4,500,000	\$2,000,000
October (forecast)	\$1,000,000	\$ 500,000
November (forecast)	\$1,500,000	\$ 750,000
December (forecast)	\$2,000,000	\$1,000,000

- The firm collects 60 percent of sales for cash and 40 percent of its sales one month later.
- Interest income of \$50,000 on marketable securities will be received in December.
- The firm pays cash for 40 percent of its purchases.
- The firm pays for 60 percent of its purchases the following month.
- Salaries and wages amount to 15 percent of the preceding month's sales.
- Sales commissions amount to 2 percent of the preceding month's sales.
- Lease payments of \$100,000 must be made each month.
- A principal and interest payment on an outstanding loan is due in December of \$150,000.
- The firm pays dividends of \$50,000 at the end of the quarter.
- Fixed assets costing \$600,000 will be purchased in December.
- Depreciation expense each month of \$45,000.
- The firm has a beginning cash balance in October of \$100,000 and maintains a minimum cash balance of \$200,000.

Answer:

Cash Budget					
Month	August	September	October	November	December
Sales	\$3,000,000	4,500,000	1,000,000	1,500,000	2,000,000
Cash (60%)	1,800,000	2,700,000	600,000	900,000	1,200,000
1 mo. (40%)		1,200,000	1,800,000	400,000	600,000
Interest					50,000
Total Receipts		3,900,000	2,400,000	1,300,000	1,850,000
Purchase	3,500,000	2,000,000	500,000	750,000	1,000,000
Cash(40%)	1,400,000	800,000	200,000	300,000	400,000
1 mo.(60%)		2,100,000	1,200,000	300,000	450,000
Salaries & Wages		450,000	675,000	150,000	225,000
Sales Commission		60,000	90,000	20,000	30,000
Lease Payments		100,000	100,000	100,000	100,000
Princ & Interest Pay					150,000
Cash dividends					50,000
Fixed assets purchase					600,000
Total Disbursements		3,510,000	2,265,000	870,000	2,005,000
Net cash flow		390,000	135,000	430,000	(155,000)
Add: Beg. Cash			100,000	235,000	665,000
Ending cash			235,000	665,000	510,000
Less: Min Cash			200,000	200,000	200,000
Required Fin.					
Excess Cash			35,000	465,000	310,000

The firm has excess cash during the three month period and can invest the excess cash in marketable securities.

Topic: Cash Flow Analysis

Question Status: Previous Edition

- 41) Harry's House of Hamburgers (HHH) wants to prepare a cash budget for months of September through December. Using the following information, prepare the cash budget schedule and interpret the results.
- Sales were \$50,000 in June and \$60,000 in July. Sales have been forecasted to be \$65,000, \$72,000, \$63,000, \$59,000, and \$56,000 for months of August, September, October, November, and December, respectively. In the past, 10 percent of sales were on cash basis, and the collection were 50 percent in the first month, 30 percent in the second month, and 10 percent in the third month following the sales.
 - Every four months (three times a year) \$500 of dividends from investments are expected. The first dividend payment was received in January.
 - Purchases are 60 percent of sales, 15 percent of which are paid in cash, 65 percent are paid one month later, and the rest is paid two months after purchase.
 - \$8,000 dividends are paid twice a year (in March and September).
 - The monthly rent is \$2,000.
 - Taxes are \$6,500 payable in December.
 - A new hamburger press will be purchased in October for \$2,300.
 - \$1,500 interest will be paid in November.
 - \$1,000 loan payments are paid every month.
 - Wages and salaries are \$1,000 plus 5 percent of sales in each month.
 - August's ending cash balance is \$3,000.
 - HHH would like to maintain a minimum cash balance of \$10,000.

Answer:

Cash Budget							
Month	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Sales	\$50,000	60,000	65,000	72,000	63,000	59,000	56,000
Cash sales(10%)	5,000	6,000	6,500	7,200	6,300	5,900	5,600
Collections of A/R:							
1 mon(50%)		25,000	30,000	32,500	36,000	31,500	29,500
2 mon(30%)			15,000	18,000	19,500	21,600	18,900
3 mon(10%)				5,000	6,000	6,500	7,200
Dividend income				500			
Total cash recpts				\$63,200	67,800	65,500	61,200
Purch.	\$30,000	36,000	39,000	43,200	37,800	35,400	33,600
Cash purchases(15%)	4,500	5,400	5,850	6,480	5,670	5,310	5,040
Payments of A/P:							
1 mon(65%)		19,500	23,400	25,350	28,080	24,570	23,010
2 mon(20%)			6,000	7,200	7,800	8,640	7,560
Dividend Payment				8,000			
Rent				2,000	2,000	2,000	2,000
Taxes							6,500
New Asset					2,300		
Interest						1,500	
Loan Payment				1,000	1,000	1,000	1,000
Wages & Salaries				4,600	4,150	3,950	3,800
Total cash disbursements				\$54,630	51,000	46,970	48,910
Net cash flow				\$ 8,570	16,800	18,530	12,290
Add: Beg. cash				3,000	11,570	28,370	46,900
Ending cash				11,570	28,370	46,900	59,190
Less: Min. cash				10,000	10,000	10,000	10,000
Required total financing Excess cash				1,570	18,370	36,900	49,190

No financing required. The company may invest the excess cash in marketable securities.

Topic: Cash Flow Analysis

Question Status: Revised

Learning Goal 5: Explain the simplified procedures used to prepare and evaluate the pro forma income statement and the pro forma balance sheet.

- 1) Development of pro forma financial statements help the financial manager to project the amount, if any, of external financing required to support a given level of sales as well as a basis for analyzing in advance the level of profitability and overall financial performance of the firm in the coming year.

Answer: TRUE

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 2) Due to the no fixed costs assumption underlying the strict percent-of-sales method, the use of cost and expense ratios generally tends to understate profits when sales are increasing and overstate profits when sales are decreasing.

Answer: TRUE

Topic: Pro Forma Analysis

Question Status: Previous Edition

3) _____ statements are projected financial statements.

- A) Pro forma
- B) Income
- C) Cash
- D) Balance sheet

Answer: A

Topic: Pro Forma Analysis

Question Status: Previous Edition

4) The key inputs for preparing pro forma income statements using the simplified approaches are the

- A) sales forecast for the preceding year and financial statements for the coming year.
- B) sales forecast for the coming year and the cash budget for the preceding year.
- C) sales forecast for the coming year and financial statements for the preceding year.
- D) cash budget for the coming year and sales forecast for the preceding year.

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

5) The strict application of the percent-of-sales method of preparing the pro forma income statement assumes all costs are

- A) fixed.
- B) constant.
- C) independent.
- D) variable.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

6) Under the judgmental approach for developing a pro forma balance sheet, the "plug" figure required to bring the statement into balance may be called the

- A) cash balance.
- B) retained earnings.
- C) external financing required.
- D) accounts receivable.

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

7) The _____ method of developing a pro forma income statement forecasts sales and values for the cost of goods sold, operating expenses, and interest expense that are expressed as a ratio of projected sales.

- A) percent-of-sales
- B) accrual
- C) judgmental
- D) cash

Answer: A

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 8) The best way to adjust for the presence of fixed costs when using the simplified approach for pro forma income statement preparation is
- A) to proportionately vary the fixed costs with the change in sales.
 - B) to adjust for projected fixed-asset outlays.
 - C) to disproportionately vary the costs with the change in sales.
 - D) to break the firm's historical costs into fixed and variable components.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 9) The _____ method of developing a pro forma balance sheet estimates values of certain balance sheet accounts while others are calculated. In this method, the firm's external financing is used as a balancing, or plug, figure.
- A) percent-of-sales
 - B) accrual
 - C) judgmental
 - D) cash

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 10) A firm has prepared the coming year's pro forma balance sheet resulting in a plug figure in a preliminary statement called the external financing required of \$230,000. The firm should prepare to
- A) repurchase common stock totaling \$230,000.
 - B) arrange for a loan of \$230,000.
 - C) do nothing; the balance sheet balances.
 - D) invest in marketable securities totaling \$230,000.

Answer: B

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 11) A firm has prepared the coming year's pro forma balance sheet resulting in a plug figure in a preliminary statement called the external financing required of negative \$250,000. The firm may prepare to
- A) sell common stock totaling \$250,000.
 - B) arrange for a loan of \$250,000.
 - C) do nothing; the balance sheet balances.
 - D) invest in marketable securities totaling \$250,000.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 12) The primary purpose in preparing pro forma financial statements is
- A) for cash planning.
 - B) to ensure the ability to pay dividends.
 - C) for risk analysis.
 - D) for profit planning.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 13) The strict application of the percent-of-sales method to prepare a pro forma income statement assumes the firm has no fixed costs. Therefore, the use of the past cost and expense ratios generally tends to _____ profits when sales are increasing.

A) accurately predict
B) overstate
C) understate
D) have no effect on

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 14) In the next planning period, a firm plans to change its policy of all cash sales and initiate a credit policy requiring payment within 30 days. The statements that will be directly affected immediately are the

A) pro forma income statement, pro forma balance sheet, and cash budget.
B) pro forma balance sheet and cash budget.
C) cash budget and statement of retained earnings.
D) pro forma income statement and pro forma balance sheet.

Answer: B

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 15) A firm plans to retire outstanding bonds in the next planning period. The statements that will be affected are the

A) pro forma income statement, pro forma balance sheet, cash budget, and statement of retained earnings.
B) pro forma balance sheet and cash budget.
C) cash budget and statement of retained earnings.
D) pro forma income statement and pro forma balance sheet.

Answer: A

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 16) A firm plans to depreciate a five year asset in the next planning period. The statements that will be directly affected immediately are the

A) pro forma income statement, pro forma balance sheet, and cash budget.
B) pro forma balance sheet, cash budget, and statement of retained earnings.
C) cash budget and pro forma balance sheet.
D) pro forma income statement and pro forma balance sheet.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

Table 3.3

The financial analyst for Sportif, Inc. has compiled sales and disbursement estimates for the coming months of January through May. Historically, 75 percent of sales are for cash with the remaining 25 percent collected in the following month. The ending cash balance in January is \$3,000. Prepare a cash budget for the months of February through May to answer the following multiple choice questions.

Month	Sportif, Inc. Sales	Disbursements
January	\$ 5,000	\$6,000
February	6,000	\$7,000
March	10,000	\$4,000
April	10,000	\$5,000
May	10,000	\$5,000

17) The total cash receipts for April are (See Table 3.3)

- A) \$5,000.
- B) \$7,500.
- C) \$9,250.
- D) \$10,000.

Answer: D

Topic: Cash Planning Process

Question Status: Previous Edition

18) The net cash flow for February is (See Table 3.3)

- A) -\$1,250.
- B) -\$1,000.
- C) \$5,750.
- D) \$750.

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

19) The firm has a negative net cash flow in the month(s) of (See Table 3.3)

- A) January, February, and March.
- B) February and March.
- C) January and February.
- D) February.

Answer: D

Topic: Cash Planning Process

Question Status: Previous Edition

20) The ending cash balance for March is (See Table 3.3)

- A) \$ 250.
- B) \$6,750.
- C) \$2,500.
- D) \$ 500.

Answer: B

Topic: Cash Planning Process

Question Status: Previous Edition

21) The ending cash balance for February is (See Table 3.3)

- A) \$ 750.
- B) \$1,750.
- C) \$2,500.
- D) -\$1,000.

Answer: B

Topic: Cash Planning Process

Question Status: Previous Edition

22) At the end of May, the firm has an ending cash balance of (See Table 3.3)

- A) \$9,000.
- B) \$16,750.
- C) \$14,250.
- D) \$12,000.

Answer: B

Topic: Cash Planning Process

Question Status: Previous Edition

23) The firm has a total financing requirement of _____ for the period from February through May. (See Table 3.3)

- A) \$ 0
- B) \$1,750
- C) \$1,250
- D) \$ 750

Answer: A

Topic: Cash Planning Process

Question Status: Previous Edition

24) If a pro forma balance sheet dated at the end of May was prepared from the information presented, the accounts receivable would total (See Table 3.3)

- A) \$2,500.
- B) \$7,500.
- C) \$10,000.
- D) \$1,750.

Answer: A

Topic: Pro Forma Analysis

Question Status: Previous Edition

25) If a pro forma balance sheet dated at the end of May was prepared from the information presented, the marketable securities would total (See Table 3.3)

- A) \$9,000.
- B) \$9,500.
- C) \$12,000.
- D) \$16,750.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

Table 3.4

Use the percent-of-sales method to prepare a pro forma income statement for the year ended December 31, 2004, for Hennesaw Lumber, Inc.

Hennesaw Lumber, Inc. estimates that its sales in 2000 will be \$4,500,000. Interest expense is to remain unchanged at \$105,000 and the firm plans to pay cash dividends of \$150,000 during 2004. Hennesaw Lumber, Inc.'s income statement for the year ended December 31, 2003 is shown below. From your preparation of the pro forma income statement, answer the following multiple choice questions.

Income Statement	
Hennesaw Lumber, Inc.	
For the Year Ended December 31, 2003	
Sales Revenue	\$4,200,000
Less: Cost of goods sold	<u>3,570,000</u>
Gross profits	\$ 630,000
Less: Operating expenses	<u>210,000</u>
Operating profits	\$ 420,000
Less: Interest expense	<u>105,000</u>
Net profits before taxes	\$ 315,000
Less: Taxes (40%)	<u>126,000</u>
Net profits after taxes	\$ 189,000
Less: Cash dividends	<u>120,000</u>
To: Retained earnings	\$ 69,000

26) The pro forma cost of goods sold for 2004 is (See Table 3.4)

- A) \$3,500,000.
- B) \$3,750,000.
- C) \$3,825,000.
- D) \$4,000,000.

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

27) The pro forma operating expenses for 2004 are (See Table 3.4)

- A) \$150,000.
- B) \$200,000.
- C) \$210,000.
- D) \$225,000.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

28) The pro forma net profits after taxes for 2004 are (See Table 3.4)

- A) \$202,500.
- B) \$207,000.
- C) \$52,500.
- D) \$57,000.

Answer: B

Topic: Pro Forma Analysis

Question Status: Previous Edition

29) The pro forma accumulated retained earnings account on the balance sheet is projected to (See Table 3.4)

- A) increase \$52,500.
- B) decrease \$52,500.
- C) increase \$57,000.
- D) decrease \$57,000.

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

Table 3.5

A financial manager at General Talc Mines has gathered the financial data essential to prepare a pro forma balance sheet for cash and profit planning purposes for the coming year ended December 31, 2004. Using the percent-of-sales method and the following financial data, prepare the pro forma balance sheet in order to answer the following multiple choice questions.

- (a) The firm estimates sales of \$1,000,000.
- (b) The firm maintains a cash balance of \$25,000.
- (c) Accounts receivable represents 15 percent of sales.
- (d) Inventory represents 35 percent of sales.
- (e) A new piece of mining equipment costing \$150,000 will be purchased in 2004.
Total depreciation for 2004 will be \$75,000.
- (f) Accounts payable represents 10 percent of sales.
- (g) There will be no change in notes payable, accruals, and common stock.
- (h) The firm plans to retire a long term note of \$100,000.
- (i) Dividends of \$45,000 will be paid in 2004.
- (j) The firm predicts a 4 percent net profit margin.

**Balance Sheet
General Talc Mines
December 31, 2003**

Assets	
Cash	\$ 25,000
Accounts receivable	120,000
Inventories	300,000
Total current assets	\$ 445,000
Net fixed assets	<u>\$ 500,000</u>
Total assets	\$ 945,000
Liabilities and stockholders'	
equity accounts payable	\$ 80,000
Notes payable	350,000
Accruals	<u>50,000</u>
Total current liabilities	\$ 480,000
Long-term debts	<u>150,000</u>
Total liabilities	\$ 630,000
Stockholders' equity	
Common stock	180,000
Retained earnings	<u>135,000</u>
Total Stockholders' equity	<u>\$ 315,000</u>
Total liabilities and stockholders' equity	\$ 945,000

30) The pro forma total current assets amount is (See Table 3.5)

- A) \$470,900.
- B) \$500,000.
- C) \$525,000.
- D) \$575,000.

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

31) The pro forma net fixed assets amount is (See Table 3.5)

- A) \$500,000.
- B) \$575,000.
- C) \$600,000.
- D) \$650,000.

Answer: B

Topic: Pro Forma Analysis

Question Status: Previous Edition

32) The pro forma current liabilities amount is (See Table 3.5)

- A) \$400,000.
- B) \$450,000.
- C) \$475,000.
- D) \$500,000.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

33) The pro forma total liabilities amount is (See Table 3.5)

- A) \$500,000.
- B) \$550,000.
- C) \$700,000.
- D) \$650,000.

Answer: B

Topic: Pro Forma Analysis

Question Status: Previous Edition

34) The pro forma accumulated retained earnings amount is (See Table 3.5)

- A) \$90,000.
- B) \$175,000.
- C) \$140,000.
- D) \$130,000.

Answer: D

Topic: Pro Forma Analysis

Question Status: Previous Edition

35) The external financing required in 2004 will be (See Table 3.5)

- A) \$230,000.
- B) \$240,000.
- C) \$0.
- D) \$195,000.

Answer: B

Topic: Pro Forma Analysis

Question Status: Previous Edition

36) General Talc Mines may prepare to (See Table 3.5)

- A) arrange for a loan equal to the external funds requirement.
- B) eliminate the dividend to cover the needed financing.
- C) cancel the retirement of the long term note to cover the needed financing.
- D) repurchase common stock equal to the external funds requirement.

Answer: A

Topic: Pro Forma Analysis

Question Status: Previous Edition

37) The external funds requirement results primarily from (See Table 3.5)

- A) the payment of dividends.
- B) the retirement of debt and purchase of new fixed assets.
- C) low profit margin.
- D) high cost of sales.

Answer: B

Topic: Pro Forma Analysis

Question Status: Previous Edition

38) If General Talc Mines cannot raise the external financing required through traditional credit channels, the firm may (See Table 3.5)

- A) increase sales.
- B) purchase additional fixed assets to raise productivity.
- C) sell common stock.
- D) factor accounts receivable.

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition

39) **Income Statement Huddleston
Manufacturing Company For the Year
Ended December 31, 2005**

Sales	\$2,800,000
Less: Cost of goods sold	<u>1,820,000</u>
Gross profits	\$ 980,000
Less: Operating expenses	<u>240,000</u>
Operating Profits	\$ 740,000
Less: Interest expense	<u>70,000</u>
Net profits before taxes	\$ 670,000
Less: Taxes (40%)	<u>268,000</u>
Net profits after taxes	\$ 402,000
Less: Cash Dividends	<u>132,000</u>
To: Retained earnings	\$ 270,000

Huddleston Manufacturing estimates its sales in 2006 will be \$3 million. Interest expense is expected to remain unchanged at \$70,000, and the firm plans to pay cash dividends of \$140,000 during 2006. Use the percent-of-sales method to prepare a pro forma income statement for the year ended December 31, 2006, based on the 2005 income statement shown above.

Answer: **Pro Forma Income Statement
Huddleston Manufacturing Company
For the Year Ended December 31, 2006**

Sales	\$3,000,000
Less: Cost of goods sold (65%)	<u>1,950,000</u>
Gross profits	\$1,050,000
Less: Operating expenses (8.57%)	<u>257,143</u>
Operating Profits	\$ 792,857
Less: Interest expense	<u>70,000</u>
Net profits before taxes	\$ 722,857
Less: Taxes (40%)	<u>289,143</u>
Net profits after taxes	\$ 433,714
Less: Cash Dividends	<u>140,000</u>
To: Retained earnings	\$ 293,714

Topic: Pro Forma Analysis

Question Status: Revised

Table 3.6

Income Statement
Ace Manufacturing, Inc.
For the Year Ended December 31, 2005

Sales	\$2,000,000
Less: Cost of goods sold	<u>1,200,000</u>
Gross profit	\$800,000
Less: Selling expense	200,000
General & administrative expense	60,000
Less: Depreciation	<u>40,000</u>
Operating profit	\$ 500,000
Less: Interest	<u>80,000</u>
Earnings before taxes	\$ 420,000
Less: Taxes (40%)	<u>168,000</u>
Net profit after taxes/EACS	\$ 252,000
Common stock dividends	<u>\$ 100,000</u>

40) Ace Manufacturing, Inc., is preparing pro forma financial statements for 2006. The firm utilized the percent-of-sales method to estimate costs for the next year. Sales in 2005 were \$2 million and are expected to increase to \$2.4 million in 2006. The firm has a 40 percent tax rate.

- (a) Given the 2005 income statement in Table 3.6, estimate net profit and retained earnings for 2006.
- (b) If \$200,000 of the cost of goods sold and \$40,000 of selling expense are fixed costs; and the interest expense and dividends are not expected to change, what is the dollar effect on net income and retained earnings? What is the significance of this effect?

Answer: (a)

Pro forma income statement: December 31, 2006

Sales	\$2,400,000
Less: Cost of goods sold	<u>1,440,000</u>
Gross profit	960,000
Less: Selling expense	240,000
General & administrative expense	72,000
Less: Depreciation	<u>48,000</u>
Operating profit	\$ 600,000
Less: Interest	<u>96,000</u>
Earnings before taxes	\$ 504,000
Less: Taxes (40%)	<u>201,600</u>
Net profit after taxes/EACS	\$ 302,400
Common stock dividends	<u>120,000</u>
Retained earnings	<u>\$ 182,400</u>

(b)

Sales	\$2,400,000
Less: Cost of goods sold (0.50)	1,200,000
fixed	<u>200,000</u>
Gross profit	1,000,000
Less: Selling expense (0.08)	192,000
fixed	40,000
General & administrative expense	72,000
Less: Depreciation	<u>48,000</u>
Operating profit	\$ 648,000
Less: Interest	<u>80,000</u>
Earnings before taxes	\$ 568,000
Less: Taxes (40%)	<u>227,200</u>
Net profit after taxes/EACS	\$ 340,800
Common stock dividends	<u>100,000</u>
Retained earnings	<u>\$ 240,800</u>

Net profit after tax is understated by \$38,400 and retained earnings by \$58,400, using the percent-of-sales method. In planning the addition of assets (current or fixed) and the financing of those assets, the straight percent-of-sales method understates net profit and retained earnings. This, therefore, overstates additional financing needed to add those assets. The judgmental approach allows the firm to obtain a more accurate estimate of the line of credit or long-term financing that will be necessary in the next planning period.

Topic: Pro Forma Analysis

Question Status: Previous Edition

Table 3.7

The income statement and balance sheet for the ZZZ Mattress Co. for the year ended December 31, 2005 follow.

Income Statement	
ZZZ Mattress Company	
For the Year Ended December 31, 2005	
Sales	\$300,000
Less: Cost of goods sold	<u>195,000</u>
Gross profit	\$105,000
Less: Selling expense	40,000
General and administrative expense	11,000
Less: Depreciation	<u>10,000</u>
Operating profit	\$ 44,000
Less: Interest	<u>12,000</u>
Net profit before taxes	\$ 32,000
Less: Taxes (40%)	<u>12,800</u>
	\$ 19,200

Balance Sheet	
ZZZ Mattress Company	
December 31, 2005	
Assets	
Cash	\$1,500
Accounts receivable	60,000
Inventory	<u>95,000</u>
Total current assets	\$156,500
Net plant and equipment	<u>150,000</u>
Total assets	\$306,500
Liabilities and Equities'	
Accounts payable	\$ 45,500
Notes payable	55,000
Accruals	<u>5,000</u>
Total current liabilities	\$105,500
Long-term debts	55,000
Stockholders' equity:	
Common stock	\$71,000
Retained earnings	<u>75,000</u>
Total liabilities and equities	\$306,500

41) The ZZZ Mattress Co. has been requested by the 1st National Bank, a major creditor, to prepare a pro forma balance sheet for the year ending, December 31, 2006. Using the percent-of-sales method and the following financial data, prepare the pro forma income statement and balance sheet and discuss the resulting external financing required. (See Table 3.7)

- 2006 sales are estimated at \$330,000.
- Accounts receivable represent 20 percent of sales.
- A minimum cash balance of \$1,650 is maintained.
- Inventory represents 32 percent of sales.
- Fixed-asset outlays in 2006 are \$20,000. Total depreciation expense for 2006 will be \$15,000.
- Accounts payable represents 15 percent of sales.
- Notes payable and accruals will remain the same.
- No long-term debt will be retired in 2004.
- No common stock will be repurchased in 2006.
- The firm will pay dividends equal to 50 percent of its earnings after taxes.

Answer:

Income Statement	
ZZZ Mattress Company	
For the Year Ended December 31, 2006	
Sales	\$330,000
Less: Cost of goods sold (65%)	<u>214,500</u>
Gross profit	\$115,500
Less: Selling expense (13.3%)	44,000
General and administrative expense (3.67%)	12,100
Less: Depreciation	<u>15,000</u>
Operating profit	\$ 44,400
Less: Interest (4%)	<u>13,200</u>
Net profit before taxes	\$ 31,200
Less: Taxes (40%)	<u>12,480</u>
	<u>\$ 18,720</u>

Balance Sheet
ZZZ Mattress Company
December 31, 2006

<u>Assets</u>	
Cash	\$ 1,650
Accounts receivable	66,000
Inventory	105,600
Total current assets	\$173,250
Net plant and equipment	155,000
Total assets	<u>\$328,250</u>
<u>Liabilities and Equities</u>	
Accounts payable	\$ 49,500
Notes payable	55,000
Accruals	<u>5,000</u>
Total current liabilities	<u>\$109,500</u>
Long-term debt	55,000
Stockholders' equity:	
Common stock	71,000
Retained earnings	<u>84,360</u>
Total liabilities and equities	<u>\$328,250</u>

A 10 percent growth rate in sales cannot be supported by the firm's internally generated funds. A larger line of credit or a request for a long-term loan for the additional \$8,390 is necessary to finance operations.

Topic: Pro Forma Analysis

Question Status: Previous Edition

Table 3.8

Income Statement	
Wirl Wind Company	
Sales revenue	\$3,028,500
Less: Cost of goods sold	
Fixed costs	1,350,000
Variable costs	<u>1,260,600</u>
Gross profits	\$417,900
Less: Operating expenses	
Fixed expenses	4,500
Variable expenses	<u>85,840</u>
Operating profits	\$327,560
Less: Interest expense	<u>82,150</u>
Net profits before taxes	\$245,410
Less: Taxes (40%)	<u>98,164</u>
Net profits after taxes	\$147,246
Less: Dividend	<u>50,000</u>
Increased retained earnings	\$ 97,246

Balance Sheet	
Wirl Wind Company	
Assets	
Current assets	
Cash	\$625,000
Marketable securities	298,000
Accounts receivable	580,000
Inventories	<u>496,000</u>
Total current assets	\$1,999,000
Land and building	\$625,000
Machinery & equip	765,000
Fixtures & Furn	<u>110,000</u>
Total gross fixed assets	\$1,500,000
Less: Accumulated Depreciation	30,000
Net fixed assets	\$1,470,000
Total assets	\$3,469,000
Liabilities and Stockholders' Equity	
Current liabilities	
Accounts payable	\$267,000
Notes payable	135,000
Accruals	<u>288,000</u>
Total current liabilities	\$690,000
Total Long-term debt	<u>1,200,000</u>
Total liabilities	\$1,890,000
Stockholders' equity	
Preferred stock	79,000
Common stock	750,000
Paid-in-capital	601,000
Retained earnings	<u>149,000</u>
Total stockholders' equity	\$1,579,000
Total liabilities and stockholders equity	\$3,469,000

42) The Wirl-Wind Company of America is trying to plan for the next year. Using the current income statement and balance sheet given in Table 3.8, and the additional information provided, prepare the company's pro forma statements.

- Sales are projected to increase by 15 percent.
- Total of \$75,000 in dividend will be paid.
- A minimum cash balance of \$650,000 is desired.
- A new asset for \$50,000 will be purchased.
- Depreciation expense for next year is \$50,000.
- Marketable securities will remain the same.
- Accounts receivable, inventory, accounts payable, notes payable, and accruals will increase by 15 percent.
- \$30,000 new issue of bond will be sold.
- No new stock will be issued.

Answer:

Pro Forma Income Statement	
Wirl Wind Company	
Sales revenue	\$3,482,775
Less: Cost of goods sold	
Fixed costs	1,350,000
Variable costs (42%)	1,462,766
Gross profits	\$670,009
Less: Operating expenses	
Fixed expenses	4,500
Variable expenses (2.8%)	97,518
Operating profits	\$567,991
Less: Interest expense (2.7%)	94,035
Net profits before taxes	\$ 473,956
Less: Taxes (40%)	189,582
Net profits after taxes	\$ 284,374
Less: Dividend	75,000
Increased retained earnings	\$ 209,374

Pro Forma Balance Sheet	
Wirl Wind Company	
Assets	
Current assets	
Cash	\$ 650,000
Marketable securities	298,000
Accounts receivable	667,000
Inventories	570,400
Total current assets	\$2,185,400
Land and building	
Machinery & equip.	
Fixtures & Furn.	
Total gross fixed assets	
Less: Accumulated Depreciation	
Net fixed assets	\$1,470,000
Total assets	\$3,655,400
Liabilities and Stockholders' Equity	
Current liabilities	
Accounts payable	\$ 307,050
Notes payable	155,250
Accruals	331,200
Total current liabilities	793,500
Long-term debts	1,230,000
Total liabilities	\$2,023,500
Stockholders' equity	
Preferred stock	79,000
Common stock	750,000
Paid-in-capital	601,000
Retained earnings	358,374
Total stockholders' equity	\$1,788,374
Excess cash	-156,474
Total liabilities and stockholders equity	\$3,655,400

The Wirl Wind Company of America will have an excess cash of \$156,474 which can be used to pay debt.

Topic: Pro Forma Analysis

Question Status: Previous Edition

Learning Goal 6: Evaluate the simplified approaches to pro forma financial statement preparation and the common uses of pro forma statements.

- 1) One basic weakness of the simplified pro-forma approaches lies in the assumption that certain variables, such as cash, accounts receivable, and inventories, can be forced to take on certain "desired" values.

Answer: TRUE

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 2) One basic weakness of the simplified pro-forma approaches lies in the assumption that the firm's past financial condition is an accurate indicator of its future.

Answer: TRUE

Topic: Pro Forma Analysis

Question Status: Previous Edition

- 3) A weakness of the percent-of-sales method to preparing a pro forma income statement is
- A) the assumption that the values of certain accounts can be forced to take on desired levels.
 - B) the assumption that the firm faces linear total revenue and total operating cost functions.
 - C) the assumption that the firm's past financial condition is an accurate predictor of its future.
 - D) ease of calculation and preparation.

Answer: C

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Question Status: Previous Edition

- 4) For firms with high fixed costs, the percent-of-sales approach for preparing a pro forma income statement tends to
- A) overestimate profits when sales are increasing.
 - B) underestimate profits when sales are increasing.
 - C) be an accurate predictor of profits.
 - D) be a difficult model to apply.

Answer: B

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Question Status: Previous Edition

- 5) Utilizing past cost and expense ratios (percent-of-sales method) when preparing pro forma financial statements will tend to
- A) understate profits when sales are decreasing.
 - B) understate profits when sales are increasing.
 - C) overstate profits when sales are increasing.
 - D) neither understate nor overstate profits.

Answer: B

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Question Status: Previous Edition

- 6) Utilizing past cost and expense ratios (percent-of-sales method) when preparing pro forma financial statements will tend to
- A) understate profits when sales are decreasing and overstate profits when sales are increasing.
 - B) understate profits, no matter what the change in sales, as long as fixed costs are present.
 - C) understate profits when sales are increasing and overstate profits when sales are decreasing.
 - D) overstate profits, no matter what the change in sales, as long as fixed costs are present.

Answer: C

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Question Status: Previous Edition

- 7) The weakness of the judgmental approach to preparing a pro forma balance sheet is
- A) the assumption that the values of certain accounts can be forced to take on desired levels.
 - B) the assumption that the firm faces linear total revenue and total operating cost functions.
 - C) the assumption that the firm's past financial condition is an accurate predictor of its future.
 - D) ease of calculation and preparation.

Answer: A

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Question Status: Previous Edition

- 8) In a period of rising sales, utilizing past cost and expense ratios (percent-of-sales method) when preparing pro forma financial statements will tend to
- A) overstate costs and overstate profits.
 - B) overstate costs and understate profits.
 - C) understate costs and overstate profits.
 - D) understate costs and understate profits.

Answer: B

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Question Status: Previous Edition

- 9) In a period of rising sales utilizing past cost and expense ratios (percent-of-sales method), when preparing pro forma financial statements and planning financing, will tend to
- A) understate retained earnings and understate the additional financing needed.
 - B) overstate retained earnings and overstate the additional financing needed.
 - C) understate retained earnings and overstate the financing needed.
 - D) overstate retained earnings and understate the financing needed.

Answer: C

Topic: Pro Forma Analysis

Question Status: Previous Edition